

700H

DOZER

SPECIFICATIONS

CONSTRUCTION EQUIPMENT DIVISION



Engine

700H LT / 700H XLT / 700H LGP

Type.....	John Deere POWERTECH® 6068T with turbocharger
Rated power	115 SAE net hp (86 kW) / 123 SAE gross hp (92 kW) @ 2,100 rpm
Cylinders, wet sleeve	6
Displacement.....	414 cu. in. (6.8 L)
Fuel consumption, typical.....	2.4 to 4.8 gal./hr. (9.1 to 18.2 L/h)
Maximum net torque.....	410 lb.-ft. (525 Nm) @ 1,300 rpm
Lubrication.....	pressure system with full-flow spin-on filter and oil-to-water cooler
Air cleaner	dual stage dry type with safety element, precleaner, and dash-mounted restriction indicator
Electrical system.....	24 volt with 55-amp alternator
Cooling fan.....	blower-type

Transmission

Dual-path, electronic-controlled, hydrostatic drive; load-sensing feature automatically adjusts ground speed and power to match changing load conditions; each track is powered by a variable-displacement piston pump and motor combination; decelerator controls speed from 5.5 mph (8.9 km/h) to stop

Travel speeds (infinitely variable)

Forward and reverse.....0 to 5.5 mph (0 to 8.9 km/h)

Reverse speed ratio control.....80, 100, 115, and 130% of forward speed to maximum of 5.5 mph (8.9 km/h)

Final Drives

Heavy-duty triple-reduction final drives attach directly to the mainframe, isolated from the track frame and dozer frame loads

Steering

Single-lever steering, speed, and direction control, and counterrotation; full power turns and infinitely variable track speeds provide unlimited maneuverability and optimum control; hydrostatic steering eliminates steering clutches and brakes

Brakes

Hydrostatic (dynamic) braking stops the machine whenever the direction-control lever is moved to neutral, whenever the decelerator is depressed to the end of travel, or whenever the brake pedal is depressed

Automatic Park Brake

Exclusive safety feature engages wet, multiple-disc brakes whenever the engine stops, whenever the operator applies the brake pedal, or whenever the park lock lever is placed in the start position; machine cannot be driven with brake applied, reducing wear out or need for adjustment

Hydraulic System

System.....	open center
Pressure, main relief	3,200 psi (22 064 kPa)
Pump	gear-type, fixed-displacement pump
Flow.....	25 gpm (95 L/min.) @ 2,100 rpm
Filter, return oil.....	10 micron
Control.....	T-bar three function
Cylinders.....	heat-treated, chrome-plated, polished cylinder rods with hardened steel (replaceable bushings) pivot pins

Capacities (U.S.)

Fuel tank with lockable cap	60 gal. (227 L)
Cooling system with coolant recovery tank	5.6 gal. (21 L)
Engine oil including spin-on filter	20 qt. (19 L)
Transmission reservoir refill including spin-on filter.....	17.2 gal. (65 L)
Final drive (each).....	14 qt. (13 L)
Hydraulic reservoir refill including spin-on filter	13.5 gal. (51 L)
4000S John Deere Winch, if equipped.....	10 gal. (38 L)

All powertrain and hydraulic systems allow maximum 45-degree off-level operation.

Undercarriage**700H LT****700H XLT****700H LGP**

John Deere Dura-Trax™ features large deep-heat-treated components; pins and bushings are sealed for life; rollers and idlers are permanently sealed and lubricated; full-length track frame covers reduce material buildup and ease cleaning

Sprocket	segmented	segmented	segmented
Chain	sealed and lubricated	sealed and lubricated	sealed and lubricated
Track shoes, each side.....	40	42	42
20-in. (510 mm) grouser width (closed center, single bar)			
Ground contact area	3,818 sq. in. (24 633 cm ²)	4,111 sq. in. (26 520 cm ²)	4,111 sq. in. (26 520 cm ²)
Ground pressure	6.8 psi (47 kPa)	6.5 psi (45 kPa)	6.5 psi (45 kPa)
22-in. (560 mm) grouser width (closed center, single bar)			
Ground contact area	4,192 sq. in. (27 048 cm ²)	4,514 sq. in. (29 120 cm ²)	4,514 sq. in. (29 120 cm ²)
Ground pressure	6.2 psi (44 kPa)	5.9 psi (42 kPa)	5.9 psi (42 kPa)
24-in. (610 mm) grouser width (closed center, single bar)			
Ground contact area.....			4,917 sq. in. (31 720 cm ²)
Ground pressure			5.5 psi (39 kPa)
30-in. (760 mm) grouser width (closed center, single bar)			
Ground contact area.....			6,120 sq. in. (39 486 cm ²)
Ground pressure			4.6 psi (32 kPa)
30-in. (760 mm) swamp shoes			
Ground contact area.....			6,120 sq. in. (39 486 cm ²)
Ground pressure			4.6 psi (32 kPa)
Ground clearance, minimum			
With single-bar grouser (excluding grouser height)	15 in. (381 mm)	15 in. (381 mm)	15 in. (381 mm)
With swamp shoe (including grouser height).....			17.6 in. (447 mm)
Length of track on ground.....	95 in. (2415 mm)	102 in. (2600 mm)	102 in. (2600 mm)
Track gauge, standard.....	70 in. (1778 mm)	70 in. (1778 mm)	78 in. (1981 mm)
Oscillation (at front idler).....	7 in. (178 mm)	7.7 in. (196 mm)	7.7 in. (196 mm)
Track rollers, each side	6	7	7
Carrier rollers, each side	1		1
Track pitch.....	6.91 in. (175.5 mm)	6.91 in. (175.5 mm)	6.91 in. (175.5 mm)

Optional or Special Equipment

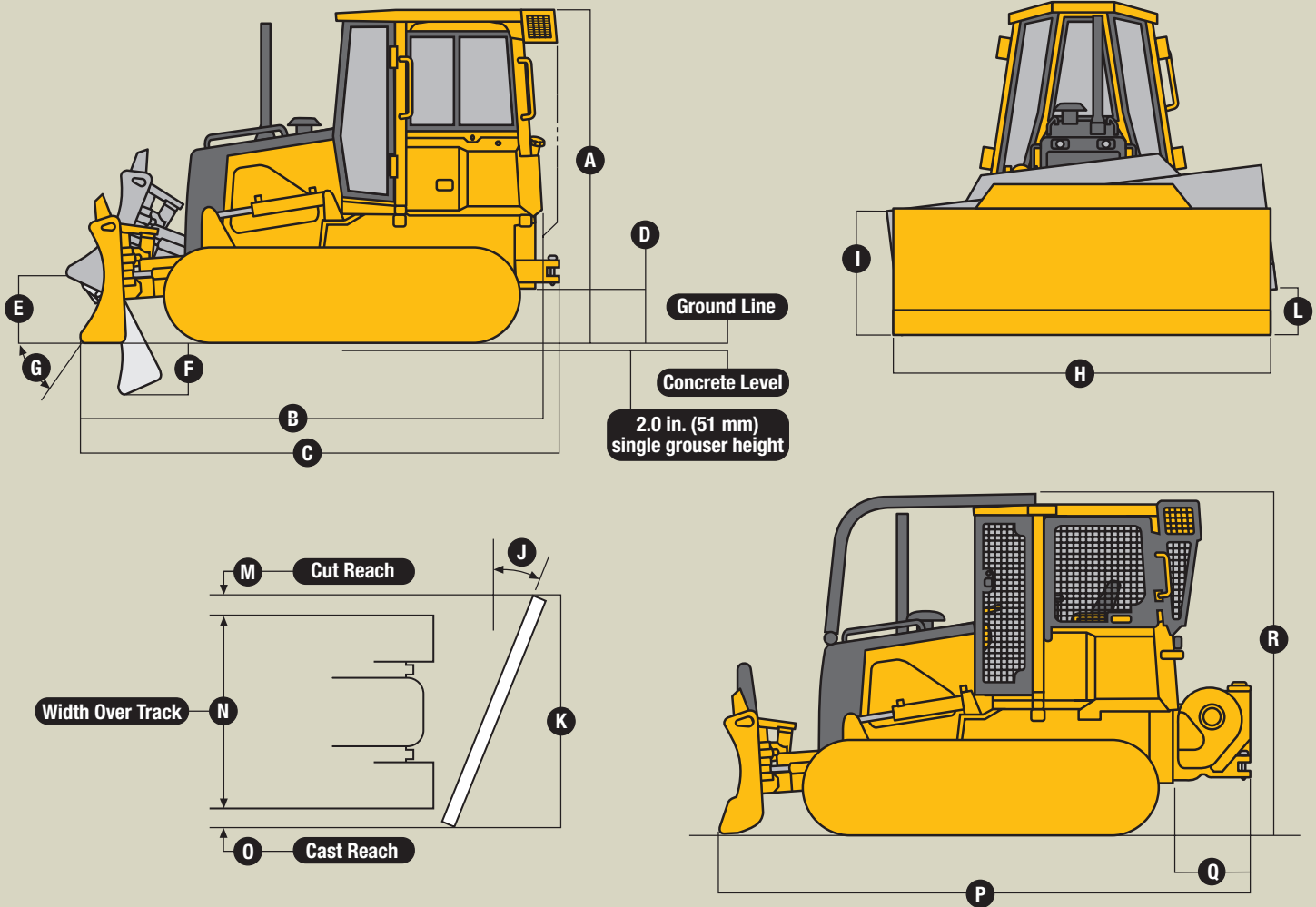
Add (+) or deduct (-) lb. (kg) as indicated to base weight for units with

20-in. (510 mm) track shoes	included in base	- 233 lb. (- 106 kg)	- 1,375 lb. (- 624 kg)
22-in. (560 mm) track shoes	222 lb. (101 kg)	included in base	- 1,100 lb. (- 499 kg)
24-in. (610 mm) track shoes	N/A	N/A	- 681 lb. (- 309 kg)
30-in. (760 mm) track shoes	N/A	N/A	included in base
30-in. (760 mm) swamp shoes.....	N/A	N/A	- 31 lb. (- 14 kg)
132-in. (3353 mm) blade for LT	140 lb. (63 kg)	140 lb. (63 kg)	included in base
All-hydraulic heavy-duty C frame (less blade)	- 1,730 lb. (- 784 kg)	- 1,730 lb. (- 784 kg)	- 1,870 lb. (- 848 kg)
Cab with heater	600 lb. (272 kg)	600 lb. (272 kg)	600 lb. (272 kg)
Cab with air conditioning	635 lb. (288 kg)	635 lb. (288 kg)	635 lb. (288 kg)
Canopy heater	26 lb. (12 kg)	26 lb. (12 kg)	26 lb. (12 kg)
Counterweight, front	380 lb. (172 kg)	380 lb. (172 kg)	380 lb. (172 kg)
Deluxe seat group.....	20 lb. (9 kg)	20 lb. (9 kg)	20 lb. (9 kg)
Front tow hook.....	17 lb. (8 kg)	17 lb. (8 kg)	17 lb. (8 kg)
Fuel-fired coolant heater.....	12 lb. (5 kg)	12 lb. (5 kg)	12 lb. (5 kg)
Grille, extreme service with heavy-duty hose guard	112 lb. (51 kg)	112 lb. (51 kg)	112 lb. (51 kg)
Limb risers, arched.....	341 lb. (155 kg)	341 lb. (155 kg)	341 lb. (155 kg)
Rear screen, canopy	45 lb. (20 kg)	45 lb. (20 kg)	45 lb. (20 kg)
Rear screen, cab.....	91 lb. (41 kg)	91 lb. (41 kg)	91 lb. (41 kg)
Side screens (cab or canopy).....	108 lb. (49 kg)	108 lb. (49 kg)	108 lb. (49 kg)
Screens, front and doors (canopy).....	120 lb. (54 kg)	120 lb. (54 kg)	120 lb. (54 kg)
Screens, front and doors (cab)	151 lb. (68 kg)	151 lb. (68 kg)	151 lb. (68 kg)
Extreme-service rear tank guard.....	225 lb. (102 kg)	225 lb. (102 kg)	225 lb. (102 kg)
Extreme-service air-conditioning module guard	117 lb. (53 kg)	117 lb. (53 kg)	117 lb. (53 kg)
Lights, driving	3 lb. (1 kg)	3 lb. (1 kg)	3 lb. (1 kg)
Work lights, high intensity.....	9 lb. (4 kg)	9 lb. (4 kg)	9 lb. (4 kg)
Parallelogram ripper with three teeth	2,400 lb. (1088 kg)	2,400 lb. (1088 kg)	2,400 lb. (1088 kg)
Retrieval hitch.....	68 lb. (31 kg)	68 lb. (31 kg)	68 lb. (31 kg)
Extended drawbar.....	195 lb. (88 kg)	195 lb. (88 kg)	195 lb. (88 kg)
Rock guards (4)	287 lb. (130 kg)	287 lb. (130 kg)	N/A
4000S John Deere Winch.....	1,437 lb. (652 kg)	1,437 lb. (652 kg)	1,437 lb. (652 kg)
Fairlead, four roller (for 4000S Winch).....	187 lb. (85 kg)	187 lb. (85 kg)	187 lb. (85 kg)
Log arch (for 4000S Winch)	780 lb. (354 kg)	780 lb. (354 kg)	780 lb. (354 kg)

SAE Operating Weights	700H LT	700H XLT	700H LGP
With standard equipment, rollover protective (ROPS) canopy, full fuel tank, and 175-lb. (79 kg) operator			
With 120-in. (3048 mm) blade and 20-in. (510 mm) track shoes.....	25,800 lb. (11 703 kg)		
With 120-in. (3048 mm) blade and 22-in. (560 mm) track shoes.....		26,790 lb. (12 152 kg)	
With 132-in. (3353 mm) blade and 30-in. (760 mm) track shoes.....			27,900 lb. (12 653 kg)

Dimensions	700H LT	700H XLT	700H LGP
<i>Rounded to the nearest whole number.</i>			
A Overall height with canopy or cab.....	118 in. (2985 mm)	118 in. (2985 mm)	118 in. (2985 mm)
B Overall length with canopy.....	178 in. (4509 mm)	185 in. (4693 mm)	185 in. (4693 mm)
Overall length with cab.....	180 in. (4580 mm)	188 in. (4765 mm)	188 in. (4765 mm)
C Overall length with retrieval hitch.....	179 in. (4552 mm)	186 in. (4736 mm)	186 in. (4736 mm)
Overall length with extended drawbar.....	193 in. (4905 mm)	200 in. (5089 mm)	200 in. (5089 mm)
D Ground clearance, minimum			
With single-bar grouser (excludes grouser height).....	15 in. (381 mm)	15 in. (381 mm)	15 in. (381 mm)
With swamp shoes (includes shoe height).....			17.6 in. (447 mm)
E Blade lift height.....	36 in. (909 mm)	39 in. (980 mm)	39 in. (980 mm)
F Blade digging depth.....	20 in. (500 mm)	21 in. (541 mm)	21 in. (541 mm)
G Blade cutting edge angle, variable adjustment range.....	7 degrees	7 degrees	7 degrees

H-Series Blade Specs	700H LT	700H XLT	700H LGP
H Width.....	120 in. (3048 mm)	120 in. (3048 mm)	132 in. (3353 mm)
SAE capacity.....	3.44 cu. yd. (2.63 m ³)	3.44 cu. yd. (2.63 m ³)	3.75 cu. yd. (2.87 m ³)
I Height (at ends).....	39 in. (998 mm)	39 in. (998 mm)	39 in. (998 mm)
Top of spill sheet (center section).....	45 in. (1140 mm)	45 in. (1140 mm)	45 in. (1140 mm)
J Blade angle, right and left.....	25 degrees	25 degrees	25 degrees
K Angled width.....	109 in. (2769 mm)	109 in. (2769 mm)	121 in. (3073 mm)
L Tilt.....	17 in. (424 mm)	17 in. (424 mm)	18 in. (467 mm)
M Cut reach			
With 20-in. (510 mm) shoes.....	2 in. (51 mm)		
With 22-in. (560 mm) shoes.....		1 in. (25 mm)	
With 30-in. (760 mm) shoes.....			- 1 in. (- 25 mm)
N Width over track.....	90 in. (2286 mm)	92 in. (2338 mm)	108 in. (2743 mm)
O Cast reach			
With 20-in. (510 mm) shoes.....	16 in. (401 mm)		
With 22-in. (560 mm) shoes.....		15 in. (375 mm)	
With 30-in. (760 mm) shoes.....			13 in. (330 mm)



Forestry Application

700H LT 700H XLT 700H LGP

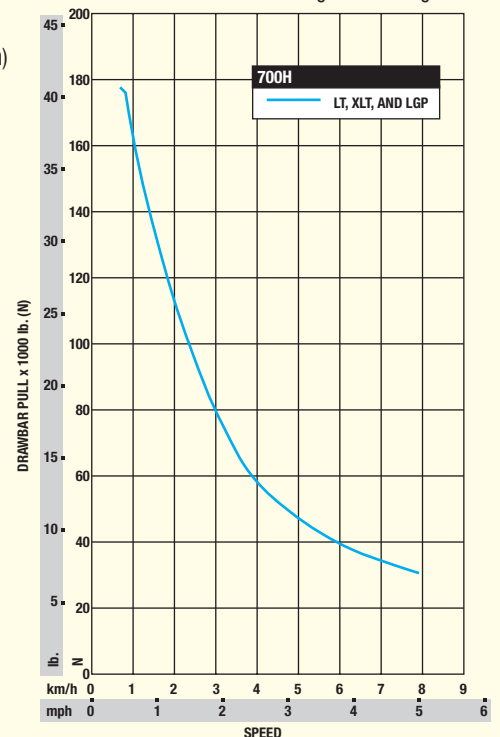
Available limb risers and screens for the rollover protective cab and canopy structures; John Deere-built, self-contained 4000S Winch* for versatile skidding and clearing operations

P Overall length with 4000S Winch	208 in. (5283 mm)	215.3 in. (5467 mm)	215.3 in. (5467 mm)
Q Additional length with 4000S Winch to (B)	30.5 in. (775 mm)	30.5 in. (775 mm)	30.5 in. (775 mm)
Additional length with 4000S fairlead to (P)	10 in. (254 mm)	10 in. (254 mm)	10 in. (254 mm)
R Overall height with limb risers	122 in. (3099 mm)	122 in. (3099 mm)	122 in. (3099 mm)

*See 4000S Winch specifications sheet.

Drawbar Pull

Drawbar pull versus ground speed.....usable pull will depend on traction and weight of tractor



700H Dozer

Key: ● Standard equipment ▲ Optional or special equipment

* See your John Deere dealer for further information.

LT XLT LGP Engine

- ● ● 115-hp (86 kW) turbocharged, isolation mounted
- ● ● Oil-to-water engine oil cooler
- ● ● Vertical spin-on oil filter
- ● ● Vertical spin-on fuel filters with water separator
- ● ● Dual-element dry air cleaner with built-in pre-cleaner and evacuator valve
- ● ● Above-hood pre-screener/raincap
- ▲ ▲ ▲ External primary precleaner*
- ● ● Enclosed safety fan guard (conforms to SAE J1308)
- ● ● Coolant recovery tank
- ● ● Blower-type cooling fan
- ● ● Trash-resistant seven-fin in-line radiator
- ● ● Under-hood muffler with vertical exhaust stack
- ● ● Pre-wired for ether start aid
- ▲ ▲ ▲ Electric ether start aid
- ▲ ▲ ▲ Radiator sand screen (steel)
- ▲ ▲ ▲ Engine coolant heater, 1,000 watts, 110 volts
- ▲ ▲ ▲ Engine coolant heater, fuel fired

Powertrain and Controls

- ● ● Dual-path hydrostatic transmission
- ● ● Single-lever steering, speed, and direction control
- ● ● Decelerator pedal with automatic retardation
- ● ● Engine-speed selection lever
- ● ● Automatic tracking control
- ● ● Dynamic braking (anti-free wheel)
- ● ● Counterrotation
- ● ● Transmission neutral lock with safety start switch
- ● ● Spring-applied, hydraulic-released parking brake
- ● ● Independent transmission oil reservoir with sight gauge
- ● ● Onboard diagnostics with visual code display
- ● ● Oil-to-air transmission oil cooler
- ● ● Built-in final drive seal guards
- ● ● Triple-reduction final drives with wet multi-disc brakes
- ● ● Max. forward/reverse speed 5.5 mph (8.9 km/h)
- ● ● Selectable reverse speed ratio setting of 80, 100, 115, or 130% of forward speed
- ▲ ▲ ▲ Remote diagnostic test ports

C-Frames and Blades

- ● ● Six-way all-hydraulic heavy-duty C-frame with infinitely adjustable blade pitch
- ● ● Remote C-frame pivot grease banks
- ● ● Cordura-covered hoses with replaceable lengths
- ● ● Straight end bits
- ● ● Blade, 120-in. (3048 mm), with heavy-duty C-frame
- ● ● Blade, 132-in. (3353 mm), with heavy-duty C-frame
- ▲ ▲ ▲ Blade, 132-in. (3353 mm), with heavy-duty C-frame*

Electrical (24-volt system)

- ● ● Fuse panel with blade-style multi-fused circuit breakers
- ● ● Horn, electric (conforms to SAE J994, J1446)
- ● ● Reverse warning alarm (conforms to SAE J994, J1446)
- ● ● Fuel gauge, electric, illuminated
- ● ● Hourmeter, electric
- ● ● Transmission oil pressure gauge, illuminated
- ● ● Master electrical disconnect
- ● ● Positive battery terminal covers with battery cover
- ● ● By-pass start safety cover at starter
- ● ● Electronic monitor with visual and audible warning: Alternator / Hydraulic filter restriction / Transmission filter restriction / Transmission oil temperature / Coolant temperature (audible) / Engine coolant temperature gauge / Engine oil pressure (audible) / Engine oil pressure gauge / Air cleaner restriction / Fasten seat belt / Park brake
- ● ● Ground-speed selection display

LT XLT LGP Electrical (24-volt system) (continued)

- ● ● Dual 12-volt low-maintenance batteries, 190-min. reserve capacity, 950 CCA
- ● ● 55-amp sealed alternator with cab or canopy
- ▲ ▲ ▲ Power port, 12 volt, 20 amps, for phone and radio

Hydraulic System

- ● ● 25-gpm fixed-displacement hydraulic gear pump
- ▲ ▲ ▲ Pump with through-drive for winch or auxiliary pump
- ● ● Low-effort T-bar blade control
- ● ● Independent hydraulic reservoir with sight gauge
- ● ● Vertical spin-on hydraulic filter
- ● ● O-ring face seal hydraulic connectors
- ● ● Three-function hydraulic valve
- ▲ ▲ ▲ Four- and five-function valves with levers, without float
- ▲ ▲ ▲ Rear auxiliary plumbing

Undercarriage

- 70-in. (1778 mm) track gauge, 95-in. (2413 mm) track on ground
- 70-in. (1778 mm) track gauge, 102-in. (2591 mm) track on ground
- 78-in. (1981 mm) track gauge, 102-in. (2591 mm) track on ground
- ● ● Double-flange rollers
- ● ● Oscillating track frame with pinned front crossbar
- ● ● Full-length smooth-surface track-frame covers
- ● ● Chain guides, front and rear (bolt-on)
- ● ● Fully protected track-tension adjusters (grease adjustable)
- ● ● Segmented sprockets
- ▲ ▲ ▲ Sprocket rock guards (bolt-on)
- ▲ ▲ ▲ Bolt-on full-length track-roller rock guards
- ● ● Sealed and lubricated track chains
- ▲ ▲ 20-in. (510 mm) extreme-service, single-bar grousers
- ▲ ● 22-in. (560 mm) extreme-service, single-bar grousers
- ▲ 24-in. (610 mm) extreme-service, single-bar grousers
- 30-in. (760 mm) extreme-service, single-bar grousers
- ▲ Swamp shoes, 30-in. (760 mm), self-cleaning pyramid

Lights (optional)

- ▲ ▲ ▲ Grille-mounted high-intensity lights (2), with rear light (1), halogen, 50 watts each
- ▲ ▲ ▲ High-intensity work lights, front (2) and rear (2), with steel guards, 50 watts each

Operator's Station

- ● ● Modular ROPS/FOPS canopy, isolation mounted (conforms to SAE J1040)
- ▲ ▲ ▲ Under-seat canopy heater, 30,000 Btu/hr.
- ▲ ▲ ▲ Modular ROPS/FOPS cab, isolation mounted (conforms to SAE J1040): Fresh air intake cab heater/defroster/pressurizer, 18,000 Btu/hr. with air precleaner / Dome light / Deluxe headliner with molded air ducts for heater, defroster, and air conditioner / 30,000-Btu/hr. under-seat heater / Front windshield and doors, wipers and washers / Tinted safety glass
- ▲ ▲ ▲ Air conditioning, 24,000 Btu/hr.
- ● ● Right and left operator station entry
- ● ● Slip-resistant front-mounting steps
- ● ● Ergonomically located handholds
- ● ● Headliner and floor mat
- ● ● Adjustable footrests and full-length armrests
- ● ● Built-in Operator's Manual storage
- ● ● Suspension vinyl seat (conforms to SAE J899): Fore and aft/weight and height combined adjustment /

LT XLT LGP Operator's Station (continued)

- Adjustable leg support / Seat belt, 2 in. (51 mm), retractable with CRS (conforms to SAE J386)
- ▲ ▲ ▲ Deluxe comfort control mechanical suspension seat, vinyl or cloth (conforms to SAE J899): Fore and aft/weight and height combined adjustment / Adjustable leg support / Adjustable backrest angle / Adjustable lumbar support / Adjustable seatback extension / Seat belt, 3 in. (76 mm), retractable with CRS (conforms to SAE J386)
- ▲ ▲ ▲ Deluxe comfort control air suspension seat, vinyl or cloth (conforms to SAE J899): Fore and aft/weight and height combined adjustment / Adjustable leg support / Adjustable backrest angle / Adjustable lumbar support / Adjustable seatback extension / Seat belt, 3 in. (76 mm), retractable with CRS (conforms to SAE J386)
- ▲ ▲ ▲ Seat belt, 3 in. (76 mm), retractable with CRS (conforms to SAE J386)

- ● ● Convex interior rearview mirror
- ▲ ▲ ▲ Rear attachment mirror (for cab only)
- ▲ ▲ ▲ Accessories: Convex wide-angle interior rearview mirror / Leg cushions (2) / Seat-side lockable storage box/lunch box/cup holder
- ▲ ▲ ▲ Rear window wiper and washer for cab
- ▲ ▲ ▲ Radio, AM/FM weatherband with digital clock and antenna

Overall Vehicle

- ● ● One-piece unitized construction mainframe
- ● ● Front tow loop (bolt-on)
- ● ● Reinforced engine and mid-frame bottom guards
- ● ● Integral transmission guard
- ● ● Heavy-duty louvered grille
- ● ● Perforated engine side shields
- ● ● Vandal protection lock provisions for: Engine service access cover / Fuel fill / Hydraulic reservoir fill/check / Transmission reservoir fill/check / Instrument panel
- ● ● Solid hood (painted gray for reduced glare)
- ● ● Lockable grease gun/tool storage compartment in right access door
- ▲ ▲ ▲ Environmental drains
- ▲ ▲ ▲ Chrome exhaust stack
- ▲ ▲ ▲ Manuals/trademarks/decals, French or Spanish
- ▲ ▲ ▲ Transport lift and tie-down rings*

Protection Packages

- ▲ ▲ ▲ Extreme-duty louvered grille and hose protection
- ▲ ▲ ▲ Limb risers, arched or point-to-point (bolt-on)
- ▲ ▲ ▲ Operator-protective rear screen (canopy or cab)
- ▲ ▲ ▲ Operator-protective side screens (canopy or cab)
- ▲ ▲ ▲ Operator-protective full-screen package (canopy or cab)
- ▲ ▲ ▲ Heavy-duty engine air-intake guard
- ▲ ▲ ▲ Extreme-service rear tank guard
- ▲ ▲ ▲ Air-conditioning module guard
- ▲ ▲ ▲ Lift cylinder guards

Attachments

- ▲ ▲ ▲ Counterweight, front, 380 lb. (172 kg)
- ▲ ▲ ▲ Counterweight, rear*
- ▲ ▲ ▲ Retrieval hitch with pin
- ▲ ▲ ▲ Extended rigid drawbar with pin for pull-type implements
- ▲ ▲ ▲ Drawbar, extended for winch (with or without Fairlead)
- ▲ ▲ ▲ Ripper, parallelogram with five shank pockets and three teeth
- ▲ ▲ ▲ Winch, John Deere 4000S, power in/free spool out OR power out
- ▲ ▲ ▲ Four-roller fairlead for winch
- ▲ ▲ ▲ Root-rake blade attachment
- ▲ ▲ ▲ Rear-mounted toolbox



JOHN DEERE

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 6270B, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000-ft. (3050 m) altitude. Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, specifications are based on units with standard equipment, rollover protective structures, full fuel tanks, and 175-lb. (79 kg) operators; 700H LT unit with 120-in. (3048 mm) blade and 20-in. (510 mm) track shoes; 700H XLT unit with 120-in. (3048 mm) blade and 22-in. (560 mm) track shoes; and 700H LGP unit with 132-in. (3353 mm) blade and 30-in. (760 mm) track shoes.

